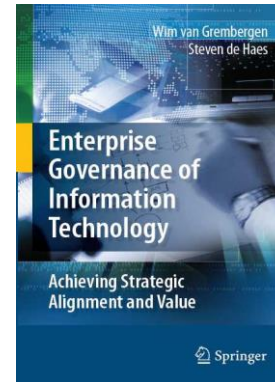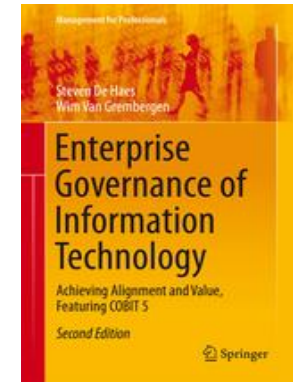# *Achieving Business/IT Alignment through COBIT 5*

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Intro: EGIT and COBIT 5

Definition of EGIT

Enterprise Governance of IT (EGIT) is an integral part of enterprise governance exercised by the Board overseeing the definition and implementation of processes, structures and relational mechanisms in the organisation enabling both business and IT people to execute their responsibilities in support of business/IT alignment and the creation of business value from IT- enabled business investments.
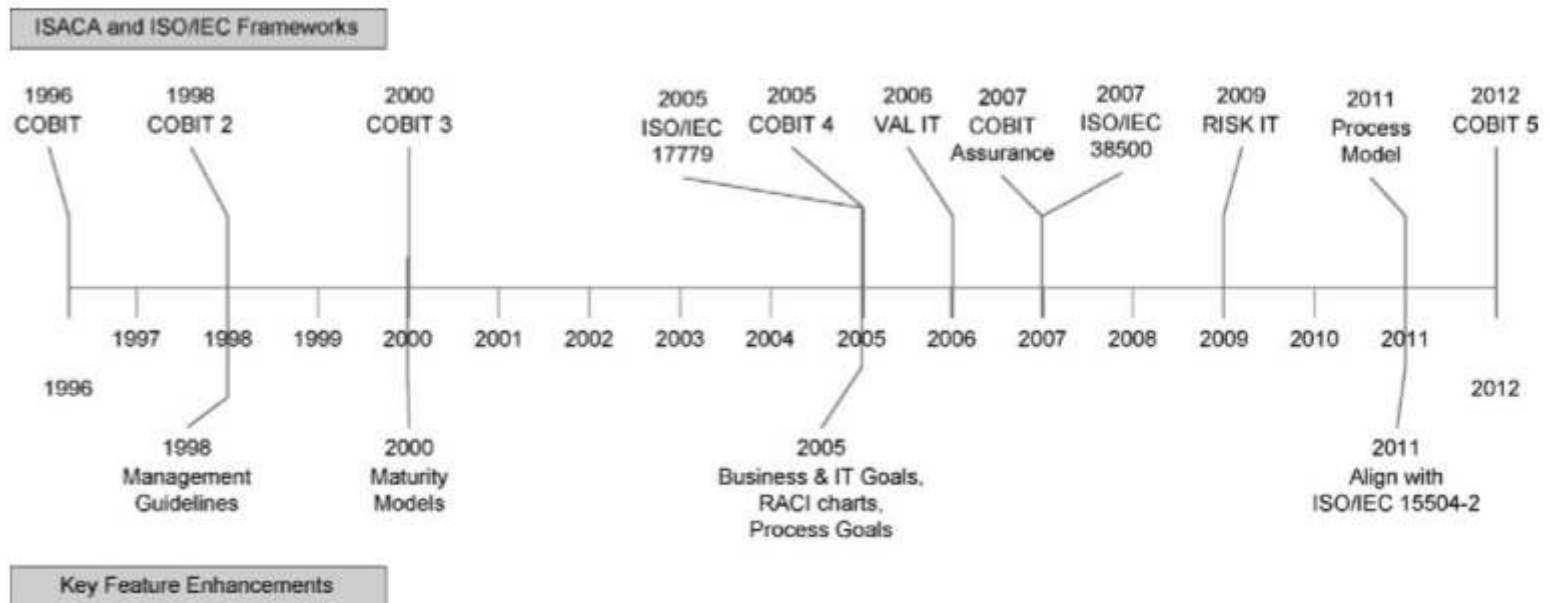
(Van Grembergen & De Haes, 2009 and 2015)

COBIT 5 Framework

- COBIT 5 is an IT governance framework developed by ISACA

- Over successive versions it transitioned towards a broader IT governance and management framework

- COBIT 5 was released in April 2012

COBIT 5 Framework

FIGURE 1
Timeline of COBIT Developments

COBIT 5 GOVERNANCE AND MANAGEMENT PROCESSES

Processes for Governance of Enterprise IT

Evaluate, Direct and Monitor

EDM01 Ensure Governance Framework Setting and Maintenance	**EDM02** Ensure Benefits Delivery	**EDM03** Ensure Risk Optimisation	**EDM04** Ensure Resource Optimisation	**EDM05** Ensure Stakeholder Transparency

Align, Plan and Organise

APO01 Manage the IT Management Framework	**APO02** Manage Strategy	**APO03** Manage Enterprise Architecture	**APO04** Manage Innovation	**APO05** Manage Portfolio	**APO06** Manage Budget and Costs	**APO07** Manage Human Resources
APO08 Manage Relationships	**APO09** Manage Service Agreements	**APO10** Manage Suppliers	**APO11** Manage Quality	**APO12** Manage Risk	**APO13** Manage Security	

Build, Acquire and Implement

BAI01 Manage Programmes and Projects	**BAI02** Manage Requirements Definition	**BAI03** Manage Solutions Identification and Build	**BAI04** Manage Availability and Capacity	**BAI05** Manage Organisational Change Enablement	**BAI06** Manage Changes	**BAI07** Manage Change Acceptance and Transitioning
BAI08 Manage Knowledge	**BAI09** Manage Assets	**BAI010** Manage Configuration				

Deliver, Service and Support

DSS01 Manage Operations	**DSS02** Manage Service Requests and Incidents	**DSS03** Manage Problems	**DSS04** Manage Continuity	**DSS05** Manage Security Services	**DSS06** Manage Business Process Controls

Monitor, Evaluate and Assess

MEA01 Monitor, Evaluate and Assess Performance and Conformance
MEA02 Monitor, Evaluate and Assess the System of Internal Control
MEA03 Monitor, Evaluate and Assess Compliance With External Requirements

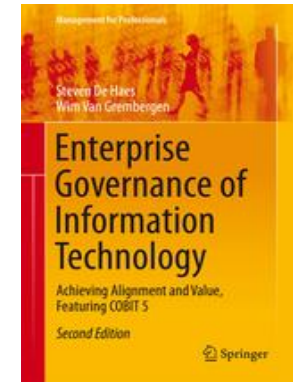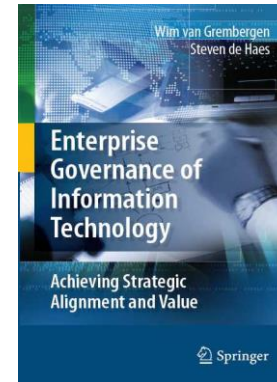## Processes for Management of Enterprise IT
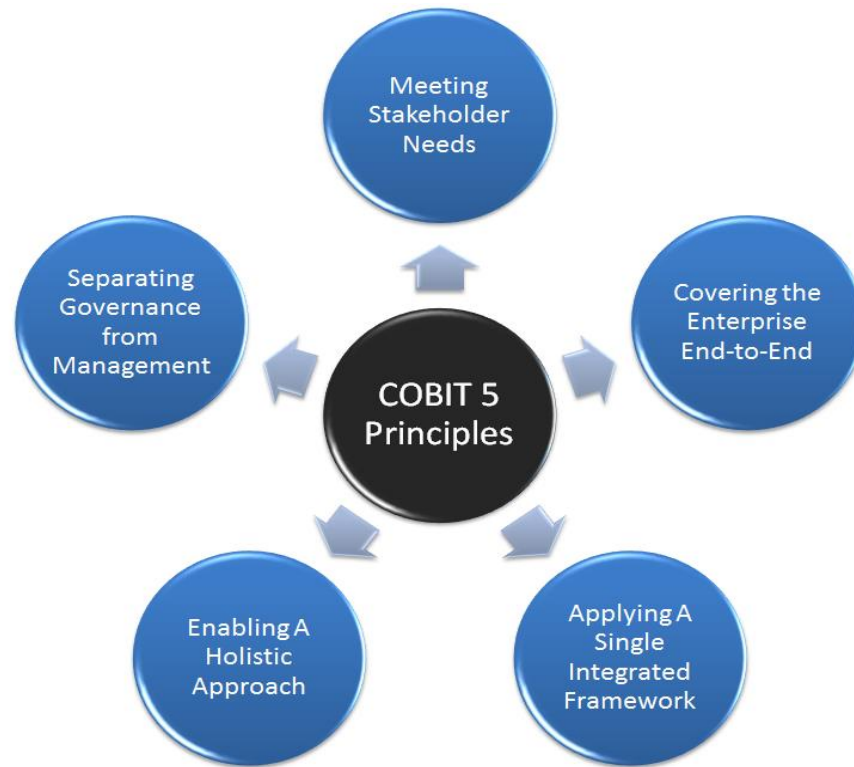
COBIT 5

COBIT 5 brings together the **five principles** that allow the enterprise to build an effective **governance** and **management** framework based on a holistic set of **seven enablers** that optimises **information** and **technology** investment and use for the benefit of stakeholders.

COBIT 5 principles and their relation with management concepts

- COBIT 5 builds on the general literature of management control and management control systems
- Management control is a suite of informal processes designed to bind organizational outcomes to organizational strategic goals (Simons)
- The definition of control in COBIT 3: "the policies, procedures, practices, and organizational structures to provide reasonable assurance that business objectives will be achieved and that undesired events will be prevented or detected and corrected"
- In COBIT 5 the word "control" is replaced by "good practices"

Principle 1: Meeting Stakeholder Needs

- Strategic Business/IT Alignment
- Operational Business/IT Alignment
- Balanced Scorecard

STRATEGIC BUSINESS/IT ALIGMENT
COBIT 5

Strategic Business/IT Alignment

- Business/IT alignment: the fit and integration among business strategy, IT strategy, business structures and IT structures

- Jerry Luftman's assessment of business/IT alignment maturity

- How?
  - Academic
    - Henderson and Venkatraman (SAM model)
    - Maes (SAM extension)
  - Practice
    - Business/IT processes (COBIT)

Business/IT maturity assessment (Jerry Luftman)

IT is <u>perceived by the business</u> as:
    1   A cost of doing business
    2   Emerging as an asset
    3   A fundamental enabler of future business activity
    4   A fundamental driver of future business activity
    5   A partner for the business that co-adapts/improvises in bringing value to the firm
    6   N/A or don't know

The following statements are about the IT and business <u>relationship and trust</u>.
    1   There is a sense of conflict and mistrust between IT and the business.
    2   The association is primarily an "arm's length" transactional style of relationship.
    3   IT is emerging as a valued service provider.
    4   The association is primarily a long-term partnership style of relationship.
    5   The association is a long-term partnership <u>and</u> valued service provider.
    6   N/A or don't know

The following statements are about the <u>cultural locus of power</u> in making IT-based decisions. Our important IT decisions are made by:
    1   Top business management or IT management at the corporate level only
    2   Top business or IT management at corporate level with emerging functional unit level influence
    3   Top business management at corporate <u>and</u> functional unit levels, with emerging shared influence from IT management
    4   Top management (business and IT) across the organization <u>and</u> emerging influence from our business partners/alliances.
    5   Top management across the organization with equal influence from our business partners/alliances.
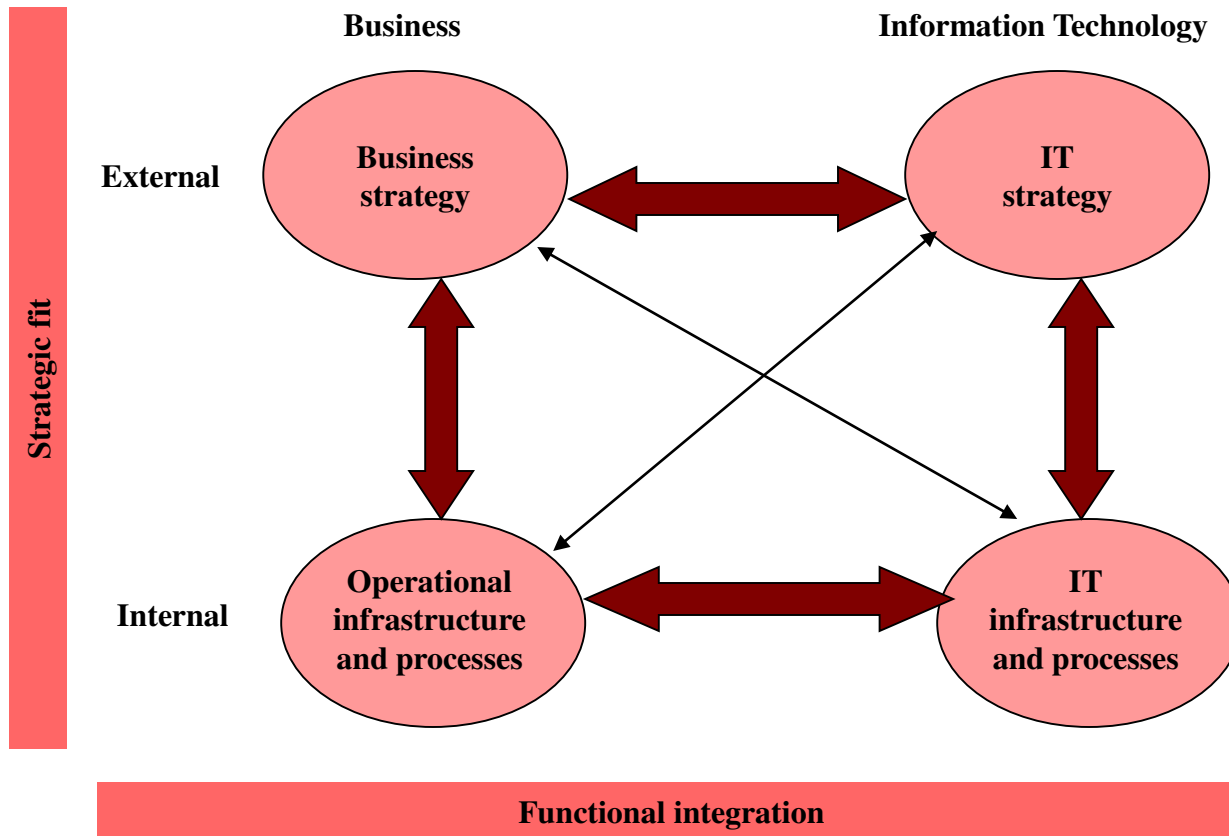   6   N/A or don't know

Business / IT alignment Belgian benchmark

Organisation	Total number of respondents	Number of IT respondents	Number of business respondents	Average maturity score by IT	Average maturity score by business	Delta	Total Alignment maturity Score	Deviation from average	
A	9	5	4	2,06	2,14	-0,07	2,10	-0,59	-22%
B	5	3	2	2,27	2,00	0,27	2,16	-0,52	-19%
C	9	3	6	2,59	2,55	0,05	2,56	-0,12	-5%
D	6	3	3	2,98	2,35	0,64	2,67	-0,02	-1%
E	9	5	4	2,69	2,74	-0,05	2,71	0,03	1%
F	8	3	5	3,15	2,46	0,69	2,72	0,04	1%
G	10	5	5	2,75	2,73	0,03	2,74	0,06	2%
H	9	6	2	2,89	2,95	-0,06	2,91	0,22	8%
I	8	5	4	3,23	2,97	0,26	3,11	0,43	16%
J	11	6	5	3,09	3,26	-0,17	3,17	0,48	18%
	Total	Total	Total				Average		
	84	44	40				2,69		

STRATEGIC BUSINESS/IT ALIGNMENT
(Henderson and Venkatraman, 1993)

Business

Information Technology

External

Business strategy

IT strategy

Strategic fit

Internal

Operational infrastructure and processes

IT infrastructure and processes

**Functional integration**

Strategic Alignment model

Business strategy as the driver: strategy execution alignment perspective
**Business strategy is articulated and is the driver
of both organizational and IT infrastructure design**
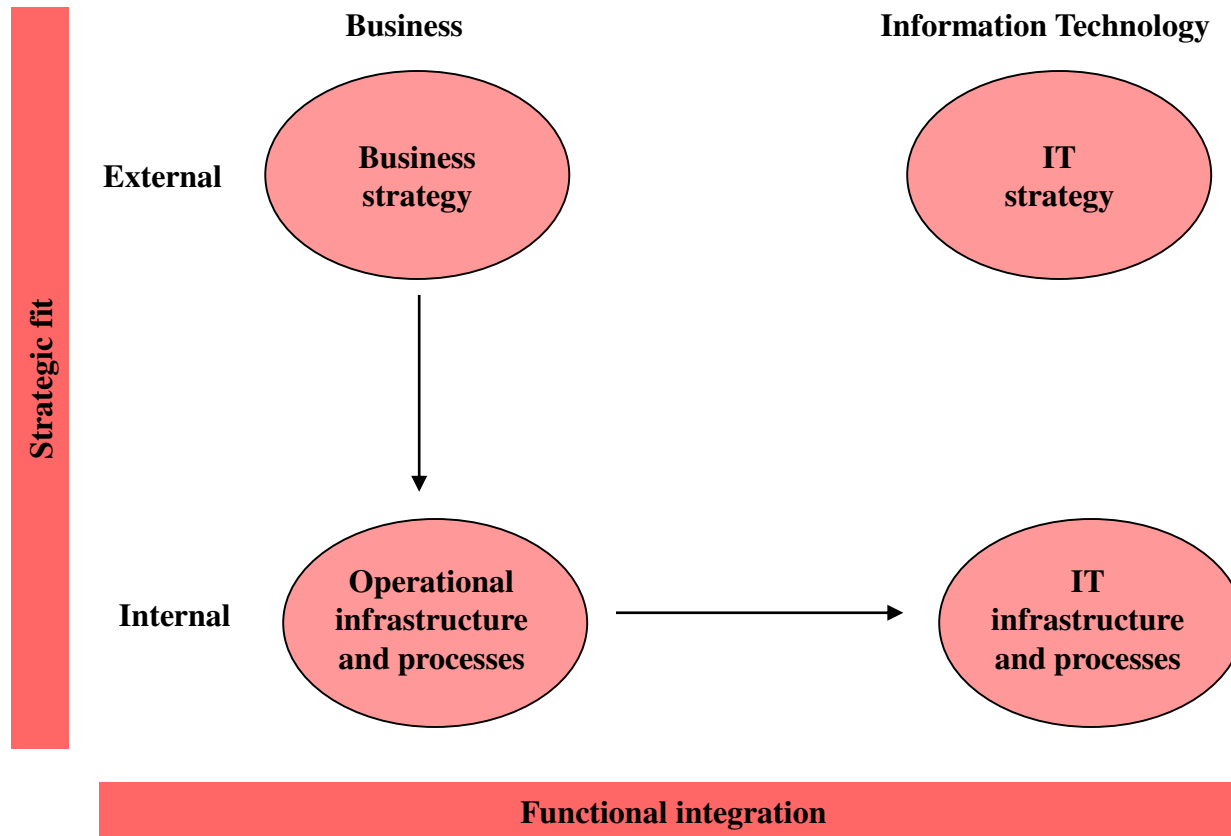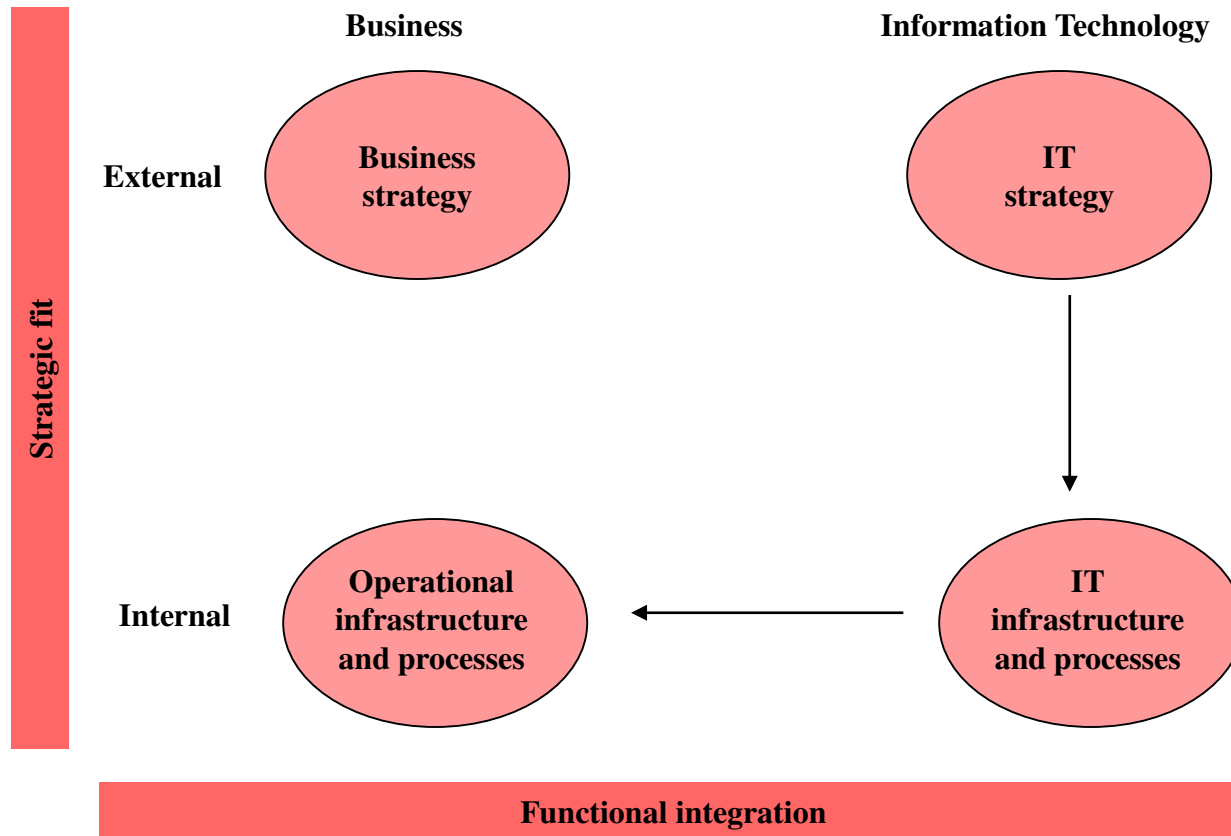
Strategic Alignment model

Business strategy as the driver: technology transformation alignment perspective
**Implementing the chosen business strategy through appropriate
IT strategy and required IT infrastructure and processes**
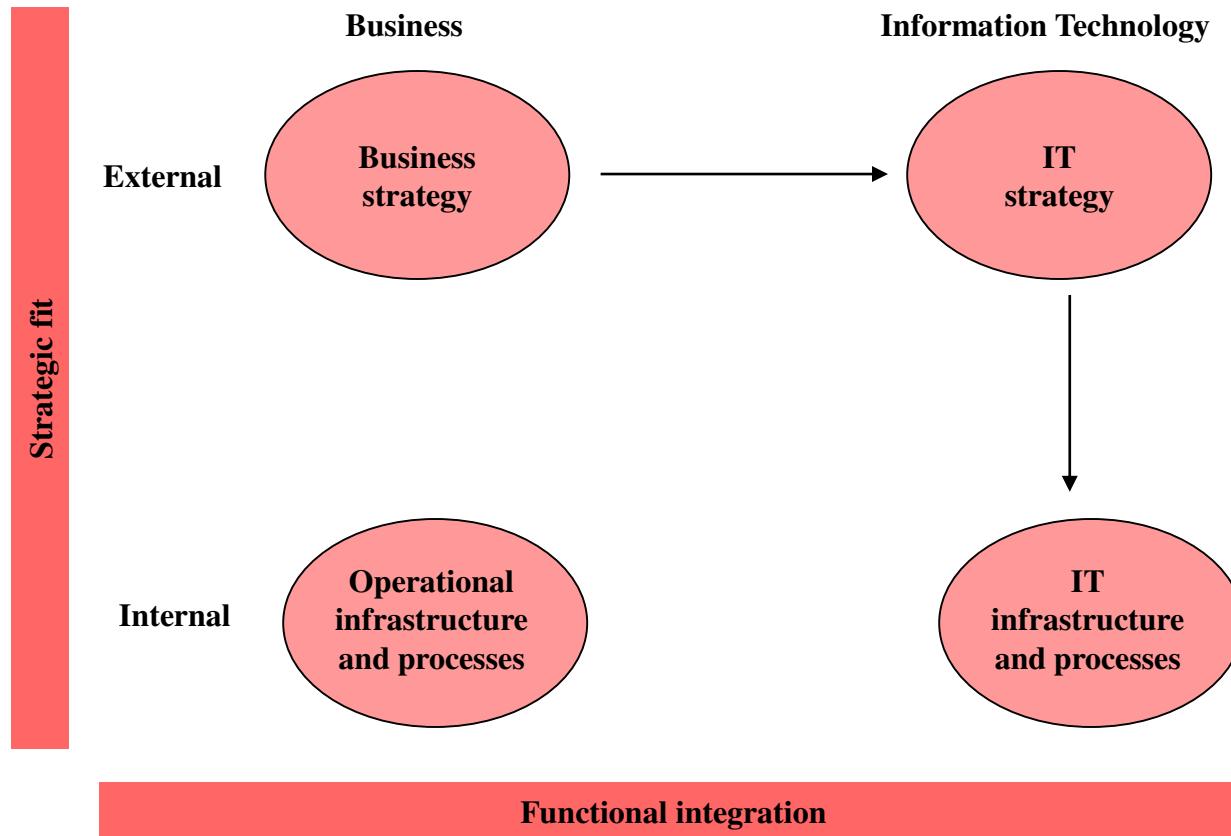
Strategic Alignment model

IT strategy as the enabler: service level alignment perspective
Focuses on how to build a world-class IT service organization

Business   **Information Technology**

Strategic fit

External

Business strategy   **IT strategy**

Internal

Operational infrastructure and processes   **IT infrastructure and processes**

Functional integration

Business/IT Alignment

- Maes (extension SAM model)
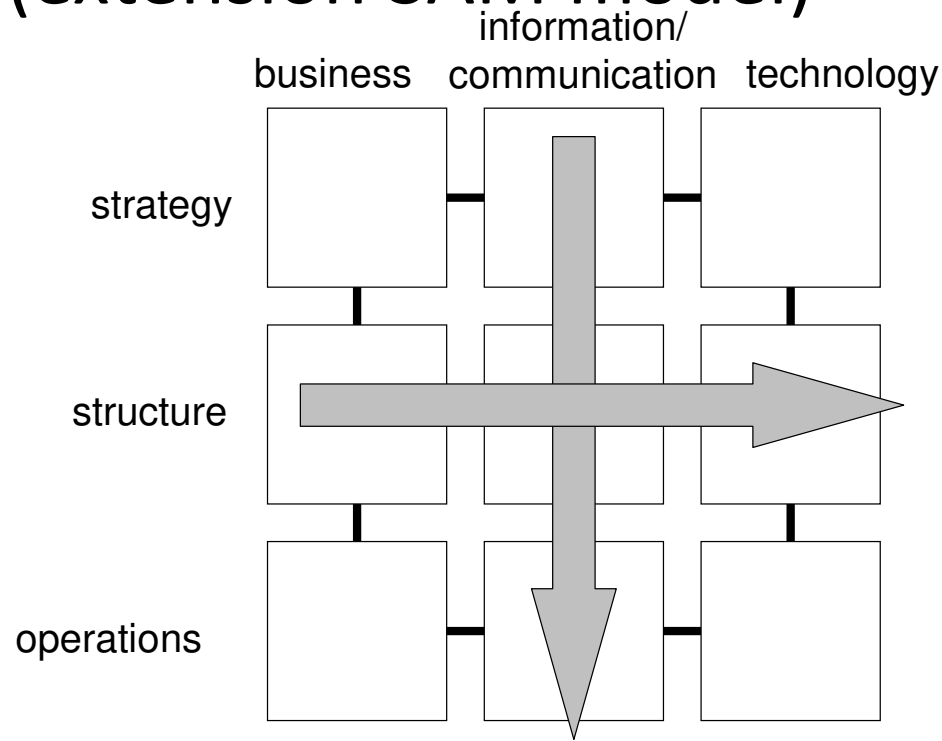
Strategic Business/IT Alignment

- Principle 1 "Meeting stakeholders needs" implies that COBIT 5 provides the required processes and other enablers to support value creation and risk management
- This is closely related to the notion of strategic business/IT alignment
- Within COBIT 5 there is an explicit assumption that organizations can achieve business/IT alignment through its developed cascade of enterprise goals, linking those goals to IT-related goals and to the IT COBIT processes

1. Meeting stakeholder needs

- Stakeholder needs have to be transformed into an enterprise's actionable strategy.

- The COBIT 5 goals cascade translates stakeholder needs into specific, actionable and customised goals within the context of the enterprise, IT-related goals and enabler goals.

Stakeholder Drivers (Environment, Technology Evolution, …)

Influences

Stakeholder Needs

| Benefits Realisation | Risk Optimisation | Resource Optimisation |

Enterprise Goals

Cascades to

IT-related Goals

Cascades to

Enabler Goals
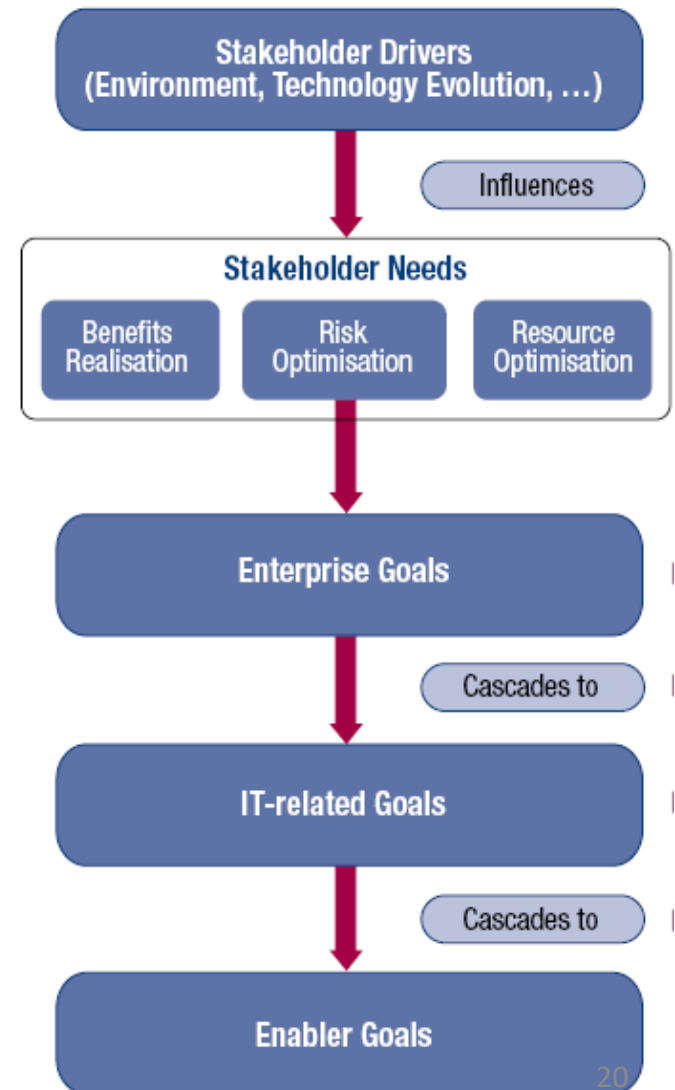
1. Meeting stakeholder needs

Portfolio of competitive products and services

Integration of applications into business processes

Enterprise Goals

IT Related Goals		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
		Financial					Customer					Internal					Learning & Growth	
Corporate	1 Alignment of IT and business strategy	S	S	S	P		P	S	P	P	S	P	S	P			S	S
	2 IT compliance with external laws and regulations	P	S													P		
	3 Commitment of executive management for taking IT decisions		S	S	P						S	S	S	P			S	S
	4 Managed IT related business risks	S	P					P	S					S		S	S	
	5 Realised benefits from IT enabled investments and services portfolio			P	P		S		S		S	S	P		S			S
	6 Transparency of IT costs, benefits and risk		S		S	P				S	P		P					
Customer	7 IT services in line with business requirements			P	P		P	S	S			P	S	S			S	S
	8 Adequate use of applications, information and technology solutions		S	S	S		S		S			S	S		S		S	S
Internal	9 IT agility		S	P	S		S		P			P		S	S	S	S	P
	10 Security of information and processing infrastructure	P	P				P									P		
	11			S	P						S	P	S	P	S		S	S
	12			P	S		S				S	S	P		S		S	S
	13			S	S	P	S					S		S	S		S	S
	14 Availability of reliable and useful information	S		S	S					P		S					S	S
	15 IT compliance with internal policies	S	S													P		
Learning & Growth	16 Competent and motivated IT people		P	S	S		S				S				P		P	S
	17 Knowledge, expertise and initiatives for business innovation			P	S		S		P	S		S		S	S	S	S	P

IT Related Goals

COBIT Processes		1 Alignment of IT and business strategy	2 IT compliance with external laws and regulations	3 Commitment of executive management for taking IT decisions	4 Managed IT related business risks	5 Realised benefits from IT enabled investments and services portfolio	6 Transparency of IT costs, benefits and risk	7 IT services in line with business requirements	8 Adequate use of applications, information and technology solutions	9 IT agility	10 Security of information and processing infrastructure	11 Optimisation of IT infrastructure, resources and capabilities	12 Integration of applications and technology into business processes	13 Delivery of programmes on time, on budget and meeting quality standards	14 Availability of reliable and useful information	15 IT compliance with internal policies	16 Competent and motivated IT people
		Corporate						Customer		Internal						Lea & G	
BAI1	Manage programmes and projects	S		S	P	P	S	S	S			S		P			
BAI2	Define Requirements	P	S	S	S	S	S	P	S	S	S	S	P	S	S		
BAI3	Identify & Build Solutions	S			S	S		P	S			S	S	S	S		
BAI4	Manage Availability and Capacity				S	S		S	S	S		P			S		
BAI5	Enable Organisational Change	S		S	S	S		S	S	S		S	S	S			S
BAI6	Manage changes				P	S		S	S	S	S	S	S	S	S		S
BAI7	Accept & Transition of Change				S	S		S	S	S			P	S	S		S
BAI8	Knowledge Management	S			S			S	S	S					S		
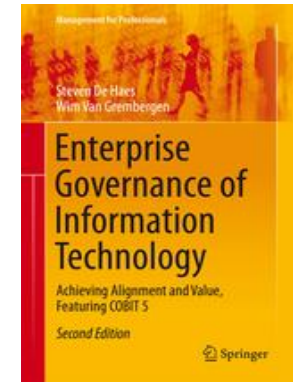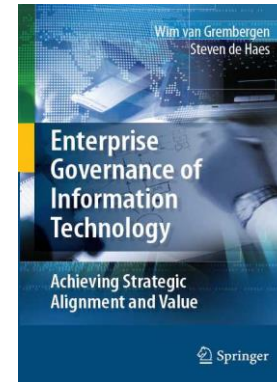
OPERATIONAL BUSINESS/IT ALIGNMENT
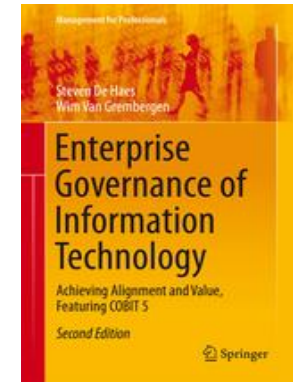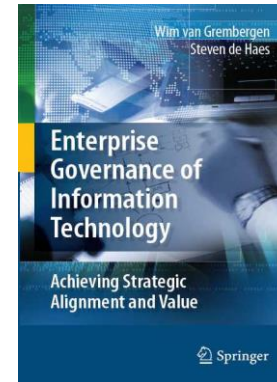# COBIT 5

Operational Business/IT Alignment COBIT 5

- How can strategic business/IT alignment be embeded into the operational level?
- COBIT 5 provides beyond the 5 governance processes also 32 business/IT management processes
- Most typical alignment process: APO08 Manage Relationships
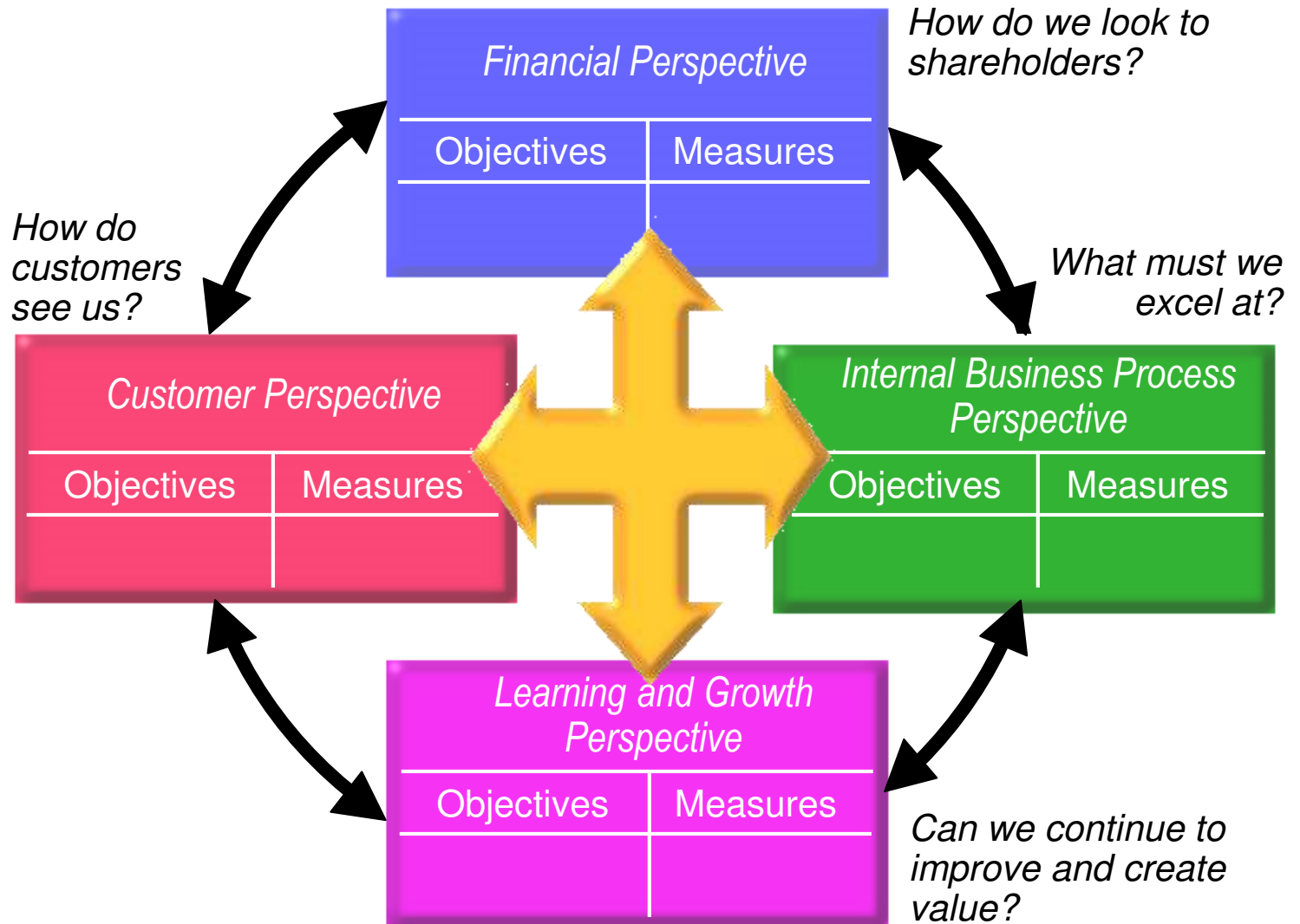
Operational Business/IT Alignment COBIT 5

(APO08 Manage Relationships)

APO08 Process Practices, Inputs/Outputs and Activities				
Management Practice	**Inputs**		**Outputs**	
APO08.01 Understand business expectations.	**From**	**Description**	**Description**	**To**
Understand current business issues and objectives and business expectations for IT. Ensure that requirements are understood, managed and communicated, and their status agreed on and approved.	APO02.05	Strategic road map	Clarified and agreed-on business expectations	Internal
Activities				
1. Identify business stakeholders, their interests and their areas of responsibilities.				
2. Review current enterprise direction, issues, strategic objectives, and alignment with enterprise architecture.				
3. Maintain an awareness of business processes and associated activities and understand demand patterns that relate to service volumes and use.				
4. Clarify business expectations for IT-enabled services and solutions and ensure that requirements are defined with associated business acceptance criteria and metrics.				
5. Confirm agreement of business expectations, acceptance criteria and metrics to relevant parts of IT by all stakeholders.				
6. Manage expectations by ensuring that business units understand priorities, dependencies, financial constraints and the need to schedule requests.				
7. Understand the current business environment, process constraints or issues, geographical expansion or contraction, and industry/regulatory drivers.				

BALANCED SCORECARD
COBIT 5

The Balanced Scorecard

Financial Perspective

Objectives	Measures

How do we look to shareholders?

How do customers see us?

Customer Perspective

Objectives	Measures

Internal Business Process Perspective

Objectives	Measures

What must we excel at?

Learning and Growth Perspective

Objectives	Measures

Can we continue to improve and create value?

Source: Robert S. Kaplan and David P. Norton, 1994

Corporate Contribution Scorecard

Objective	Measures	Benchmark
Business/IT Alignment	Operational plan/budget approval	N/A
Value Delivery	Measured in business unit performance	N/A
Cost Management	Attainment of expense and recovery targets Attainment of unit cost targets	Industry expenditure comparisons Compass operational "Top Performing" levels
Risk Management	Results of internal audits Execution of Security Initiative Delivery of Disaster Recovery Assessment	OSFI Sound Business Practices N/A N/A
Inter-company Synergy Achievement	Attainment of targeted integration cost reductions Single system solutions Target State Architecture approval IT organization integration	Merger & Acquisition guidelines N/A N/A N/A

User Orientation Scorecard

Objective	Measures	Benchmark
Competitive Costs	Attainment of unit cost targets	Compass operational "Top Performing" levels
	Blended labour rates	Market comparisons
Development Services Performance	Major project success scores: • recorded goal attainment • sponsor satisfaction rating • project governance rating	N/A
Operational Services Performance	Attainment of targeted service levels	Competitor comparisons
Customer Satisfaction	Business unit survey ratings: • cost transparency and levels • service quality and responsiveness • value of I.S. advice and support • contribution to business objectives	N/A

Operational Excellence Scorecard

Objectives	Measures	Benchmark
Development Process Performance	Function point based measures of: • productivity • quality • delivery rate	TBD
Operational Process Performance	Benchmark based measures of: • productivity • responsiveness • change management effectiveness • incident occurrence levels	• Selected Compass Benchmark studies
Process Maturity	Assessed levels of maturity and compliance in priority processes within: • planning and organization • acquisition and implementation • delivery and support • monitoring	TBD (ITGI)
Enterprise Architecture Management	• Major project architecture approval • Product acquisition compliance to technology standards • "State of the Infrastructure" assessment	N/A

Future Orientation Scorecard

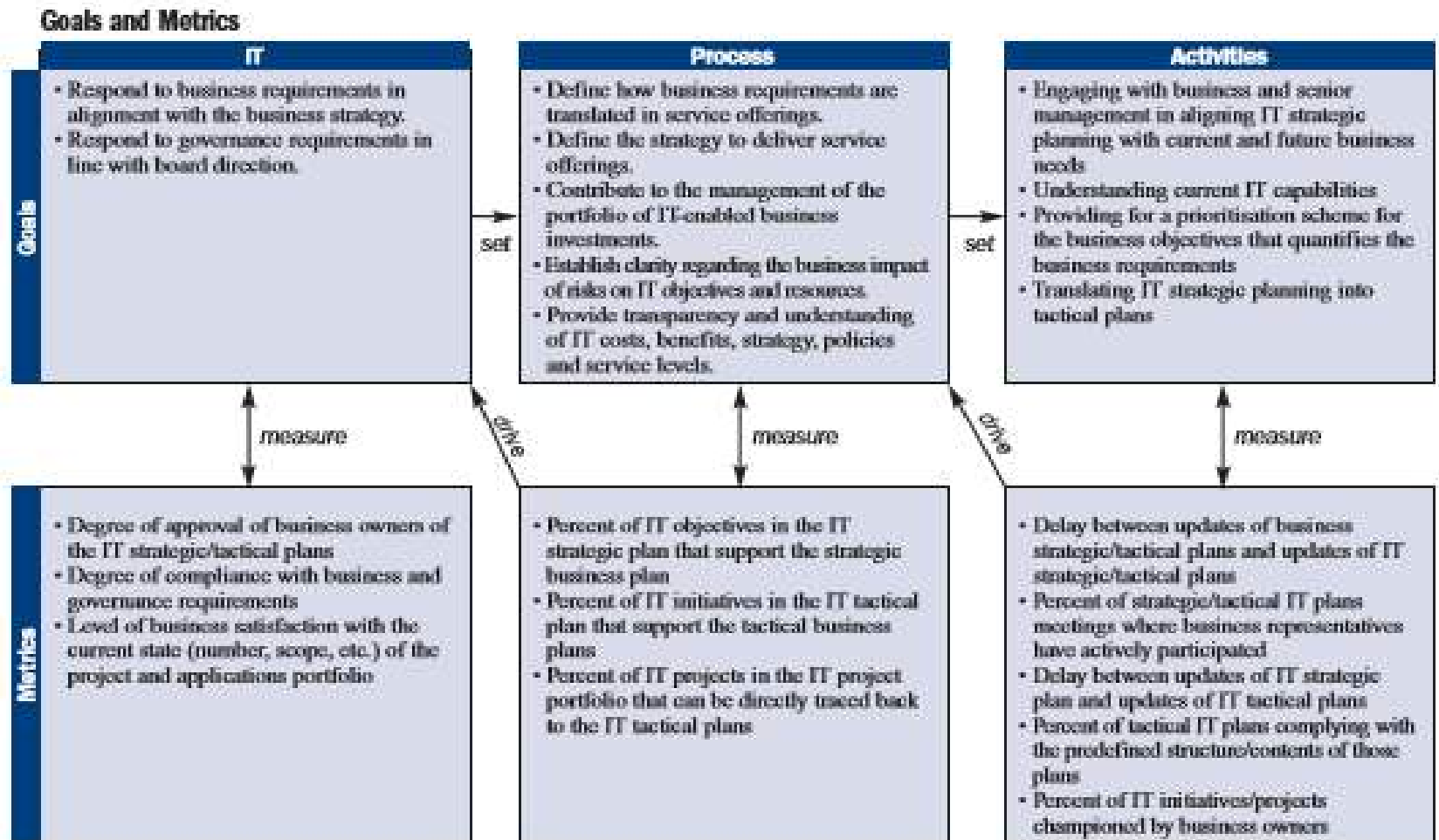| Objectives	Measures	Benchmark
Human Resource Management	Results against targets: • staff complement by skill type • staff turnover • staff "billable" ratio • professional development days per staff member	N/A Market comparison Industry standard Industry standard
Employee Satisfaction	Employee satisfaction survey scores in: • compensation • work climate • feedback • personal growth • vision and purpose	North American technology dependent companies
Knowledge Management	Delivery of internal process improvements to "Cybrary" Implementation of "lessons learned" sharing process	N/A N/A

BALANCED SCORECARD
COBIT 5

- Verification is needed whether stakeholder needs are being met through a sound measurement process

- COBIT 5 builds on the balanced scorecards as developed by Kaplan and Norton and as adapted for business/IT by Van Grembergen and others

BALANCED SCORECARD
COBIT 4.1

(P01 Define a strategic IT plan)

Goals and Metrics

IT	Process	Activities
Goals		
• Respond to business requirements in alignment with the business strategy. • Respond to governance requirements in line with board direction.	• Define how business requirements are translated in service offerings. • Define the strategy to deliver service offerings. • Contribute to the management of the portfolio of IT-enabled business investments. • Establish clarity regarding the business impact of risks on IT objectives and resources. • Provide transparency and understanding of IT costs, benefits, strategy, policies and service levels.	• Engaging with business and senior management in aligning IT strategic planning with current and future business needs • Understanding current IT capabilities • Providing for a prioritisation scheme for the business objectives that quantifies the business requirements • Translating IT strategic planning into tactical plans

set → (between IT and Process) set → (between Process and Activities)

measure ↕   drive ↗   measure ↕   drive ↗   measure ↕

IT	Process	Activities
Metrics		
• Degree of approval of business owners of the IT strategic/tactical plans • Degree of compliance with business and governance requirements • Level of business satisfaction with the current state (number, scope, etc.) of the project and applications portfolio	• Percent of IT objectives in the IT strategic plan that support the strategic business plan • Percent of IT initiatives in the IT tactical plan that support the tactical business plans • Percent of IT projects in the IT project portfolio that can be directly traced back to the IT tactical plans	• Delay between updates of business strategic/tactical plans and updates of IT strategic/tactical plans • Percent of strategic/tactical IT plans meetings where business representatives have actively participated • Delay between updates of IT strategic plan and updates of IT tactical plans • Percent of tactical IT plans complying with the predefined structure/contents of those plans • Percent of IT initiatives/projects championed by business owners

BALANCED SCORECARD
COBIT 5

(APO05 Manage Portfolio)

Process Goals and Metrics	
Process Goal	**Related Metrics**
1. An appropriate investment mix is defined and aligned with enterprise strategy.	• Percent of IT investments that have traceability to the enterprise strategy • Degree to which enterprise management is satisfied with IT's contribution to the enterprise strategy
2. Sources of investment funding are identified and available.	• Ratio between funds allocated and funds used • Ratio between funds available and funds allocated
3. Programme business cases are evaluated and prioritised before funds are allocated.	• Percent of business units involved in the evaluation and prioritisation process
4. A comprehensive and accurate view of the investment portfolio performance exists.	• Level of satisfaction with the portfolio monitoring reports
5. Investment programme changes are reflected in the relevant IT service, asset and resource portfolios.	• Percent of changes from the investment programme reflected in the relevant IT portfolios
6. Benefits have been realised due to benefit monitoring.	• Percent of investments where realised benefits have been measured and compared to the business case

BALANCED SCORECARD
COBIT 5

(APO05 Manage Portfolio)

The process supports the achievement of a set of primary IT-related goals:	
IT-related Goal	**Related Metrics**
01 Alignment of IT and business strategy	• Percent of enterprise strategic goals and requirements supported by IT strategic goals • Level of stakeholder satisfaction with scope of the planned portfolio of programmes and services • Percent of IT value drivers mapped to business value drivers
05 Realised benefits from IT-enabled investments and services portfolio	• Percent of IT-enabled investments where benefit realisation is monitored through the full economic life cycle • Percent of IT services where expected benefits are realised • Percent of IT-enabled investments where claimed benefits are met or exceeded
13 Delivery of programmes delivering benefits, on time, on budget, and meeting requirements and quality standards	• Number of programmes/projects on time and within budget • Percent of stakeholders satisfied with programme/project quality • Number of programmes needing significant rework due to quality defects • Cost of application maintenance vs. overall IT cost

Principle 2: Covering the Enterprise End-to-End

- This principle articulates that COBIT 5 does not only focus on the "IT function" but treats IT as assets or capabilities that need which aligns with the resource-based view and capabilities literatures
- COBIT 5 encompasses both IT processes and IT-related business processes as clearly shown in its developed RACI charts

Principle 2: Covering the Enterprise End-to-End

(APO05 Manage Portfolio)

APO05 RACI Chart

Key Management Practice	Board	Chief Executive Officer	Chief Financial Officer	Chief Operating Officer	Business Executives	Business Process Owners	Strategy Executive Committee	Steering (Programmes/Projects) Committee	Project Management Office	Value Management Office	Chief Risk Officer	Chief Information Security Officer	Architecture Board	Enterprise Risk Committee	Head Human Resources	Compliance	Audit	Chief Information Officer	Head Architect	Head Development	Head IT Operations	Head IT Administration	Service Manager	Information Security Manager	Business Continuity Manager	Privacy Officer
APO05.01 Establish the target investment mix.	A	R	R		C					I	C	C				C	C	C	C							
APO05.02 Determine the availability and sources of funds.	C		A		R					C								R								
APO05.03 Evaluate and select programmes to fund.	C	A	R		R		R			R								R	C							
APO05.04 Monitor, optimise and report on investment portfolio performance.	I	C	C	C	C	C	R			A						C	C	C	C				C			
APO05.05 Maintain portfolios.		I	I	R	C	A			R									R		C	C		C			
APO05.06 Manage benefits achievement.		C	C	C	A	R	I	R		I						C	C	R	C				C			

Principle 3: Aplying a single integrated framework

- COBIT 5 serves as an overarching framework for governance and management of enterprise IT
- COBIT 5 aligns at a high level with other relevant standards and frameworks (VAL IT, ITIL, …)
- COBIT 5 emphasizes the requirement of general business management being accountable for managing IT
- 5 governance processes and 32 management processes
- Specific processes addressing business roles: APO03 Manage Enterprise Architecture, APO04 Manage Innovation, BAI05 Manage Organizational Change, DSS06 Manage Business Process Control

COBIT 4.1

VALIT 2.0

RISKIT

Other ISACA frameworks: ITAF, BMIS, Board Briefing on IT Governance, …

Principle 4: Enabling a holistic approach

- COBIT 5 explains that an efficient and effective implementation of IT governance and management requires a holistic approach which consists of processes, organizational structures and human resources

- This challenge is related to what is described in the literature as the need for an organizational system, i.e. "the way a firm gets its people to work together to carry out the business"

COBIT 5 enablers
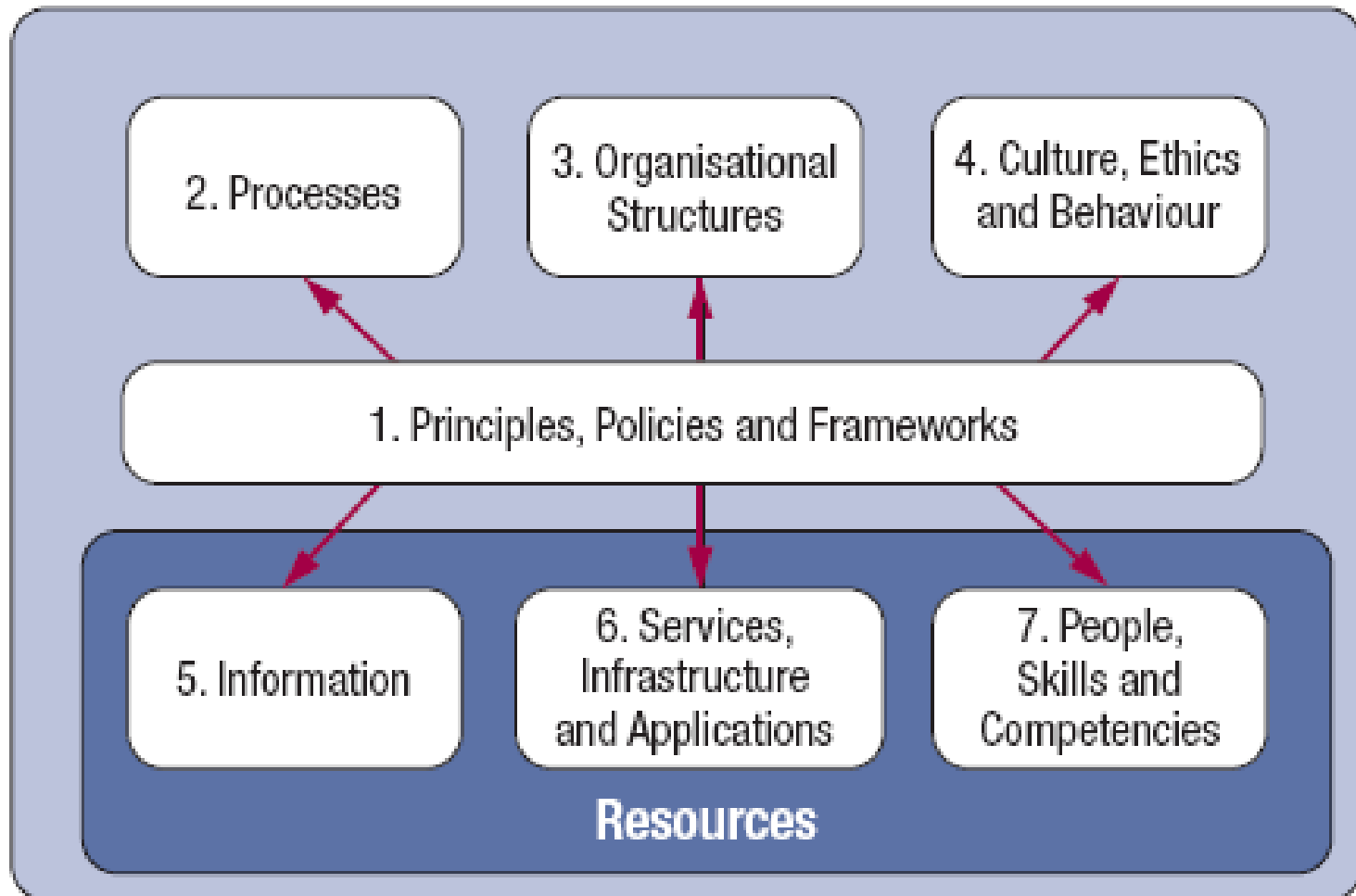
Principle 4: Enabling a holistic approach (continued)

- EGIT research (Van Grembergen and De Haes) shows that organizations can deploy EGIT by using a mixture of various structures, processes, and relational mechanisms

- COBIT 5 builds on these insights and incorporates the "enablers" in its framework

IT GOVERNANCE MODEL
(Van Grembergen – De Haes)
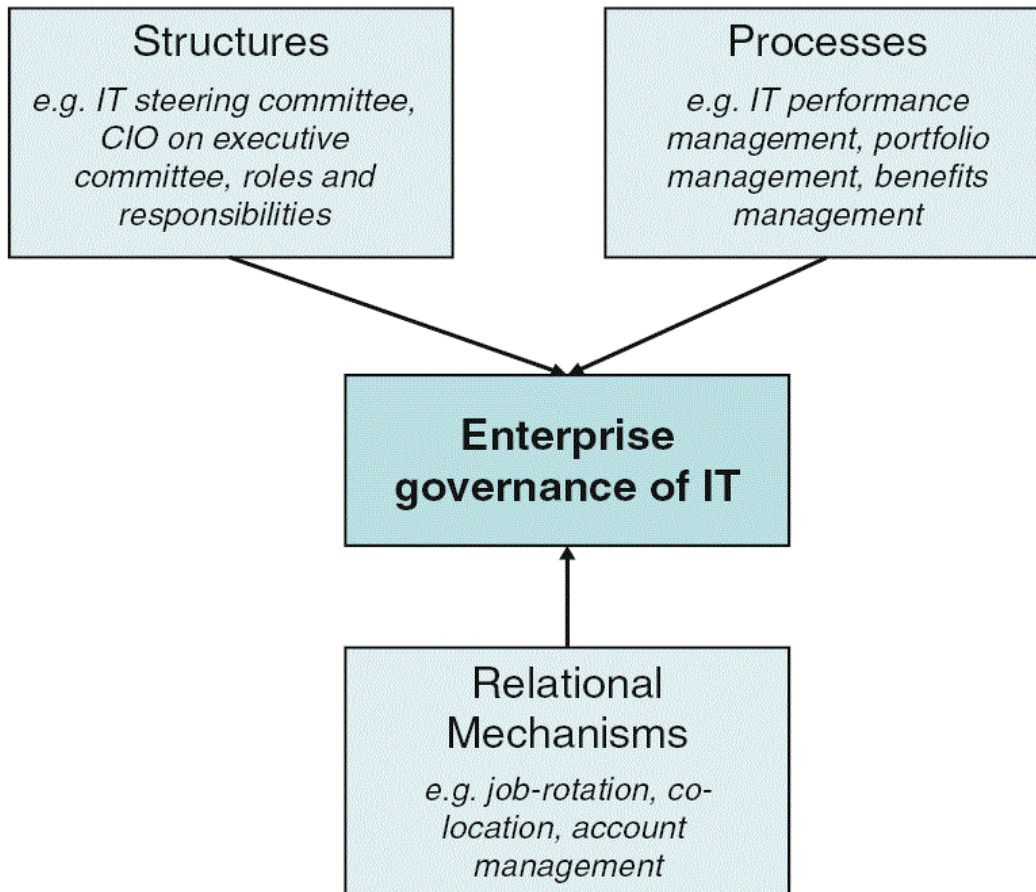
Principle 5: Separating governance from management

- The COBIT 5 framework makes a clear distinction between governance and management.
- These two disciplines:
    - Encompass different types of activities
    - Require different organisational structures
    - Serve different purposes

- **Governance**—In most enterprises, governance is the responsibility of the board of directors under the leadership of the chairperson.

- **Management**—In most enterprises, management is the responsibility of the executive management under the leadership of the CEO.
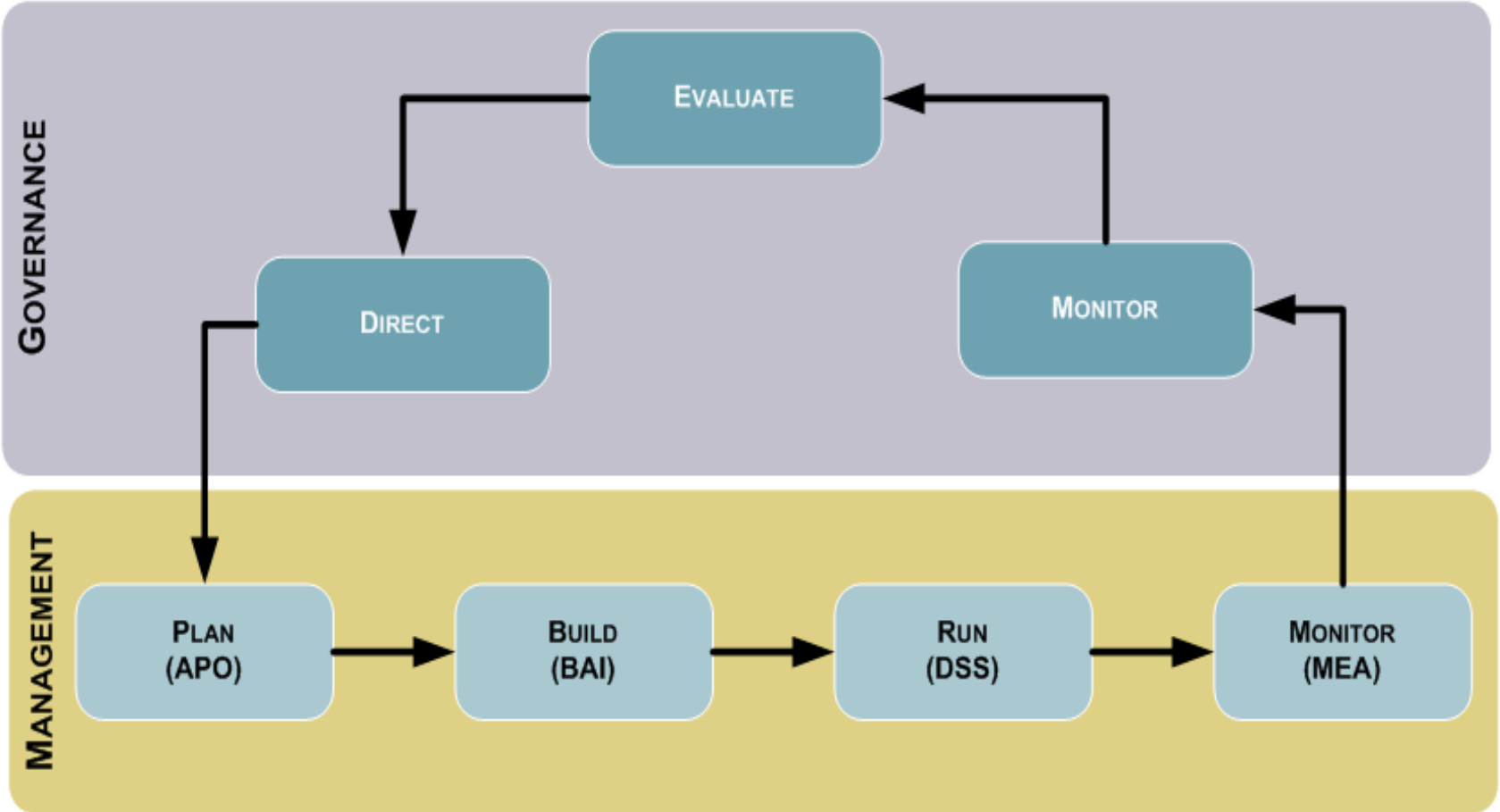
- **Governance ensures that enterprise objectives are achieved by evaluating stakeholder needs, conditions and options, setting direction through prioritisation and decision making, and monitoring performance, compliance, and progress against plans.**
  - In most enterprises, governance is the responsibility of the board of directors under the leadership of the chairperson.
- **Management plans, builds, runs and monitors activities in alignment with the direction set by the governance body to achieve the enterprise objectives.**
  - In most enterprises, management is the responsibility of the executive management under the leadership of the CEO.

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